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ISO/TS-16949  
OHSAS-18001

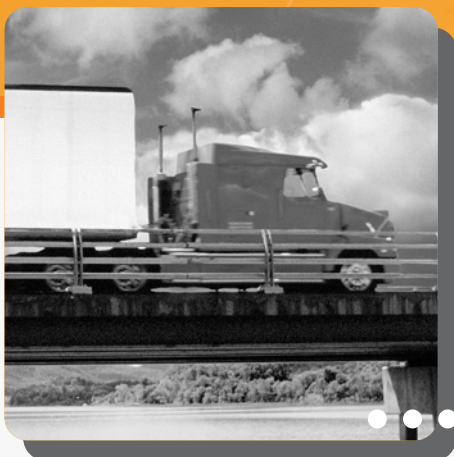
# Product Information

## "Sealing Power" ST Hub Seal

# NAK

## "Sealing Power"

ST Series Hub Seals are high-durability wheel hub seals for medium to heavy duty vehicles. They are made by integrating multiple components to offer the best sealing and service life for the heavy haulers of the trucking industry. The labyrinthine design of dust lips effectively prevents mud penetration and reduces heat generation. The special style of hydrodynamic aid increases pumping rate and reduces temperature rise and rubber wear. Besides, they are easy to install.



# "Sealing Power"

**ST Hub Seal**

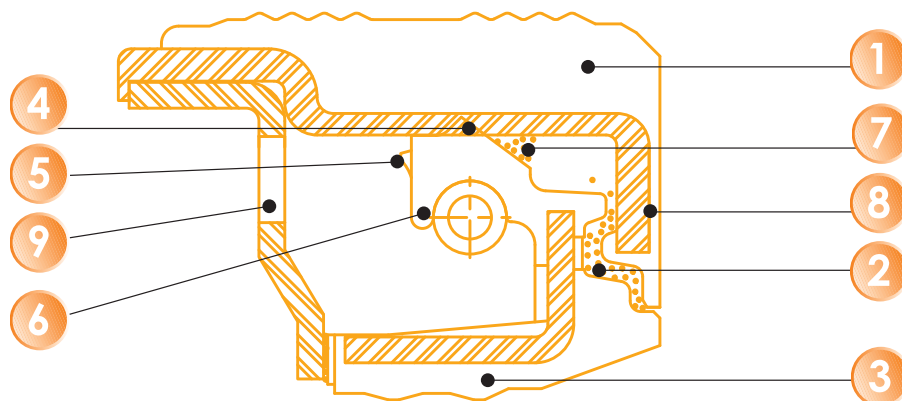




## Product Description

# Introducing the Newest Innovation for Truck Wheel Hub Protection- NAK "Sealing Power" ST5 Series Hub Seals!!

NAK ST Hub Seal family includes many variations to suit a wide range of operating conditions. Among all the ST Seals, the **ST5** is the latest innovation featuring easy installation, excellent sealing, long service life and high quality.



- 1. G style (grooved) rubber covered OD enables easy housing installation.
- 2. Labyrinthine dust lips effectively prevent mud from entering into the seal body and reduce heat generation.
- 3. G style (grooved) rubber covered ID enables easy shaft installation.
- 4. Special style of hydrodynamic aid increases pumping rate, enhancing sealing and reducing lip temperature and rubber wear.
- 5. Spring retained lip offers a better radial load, ensuring sealing and prolonging service life
- 6. The sealing element is made of high performance rubber that has superior wear and heat resistance.
- 7. The seal uses high performance grease to prevent temperature rise and prolong service life.
- 8. The outer side of the seal is designed with a flat face to prevent sticking and gathering of contaminants which may hurt the rubber composite.
- 9. The hole on the metal shell enables excellent heat transfer and better lubrication.



# Technical Information

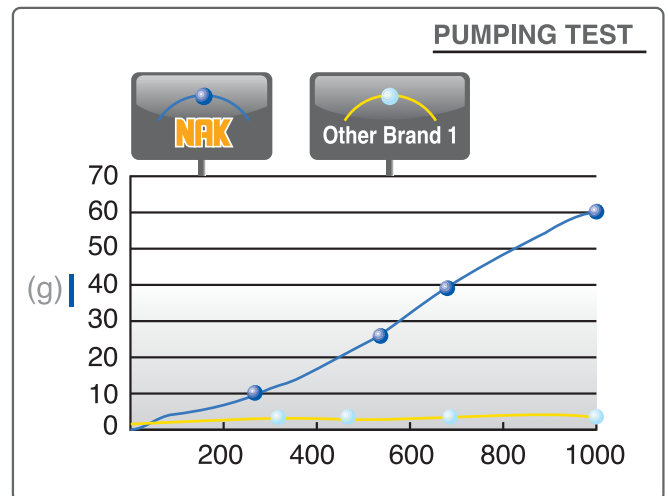
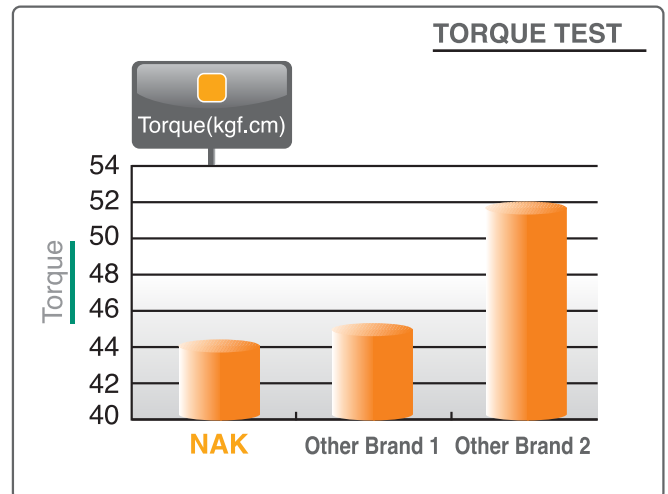
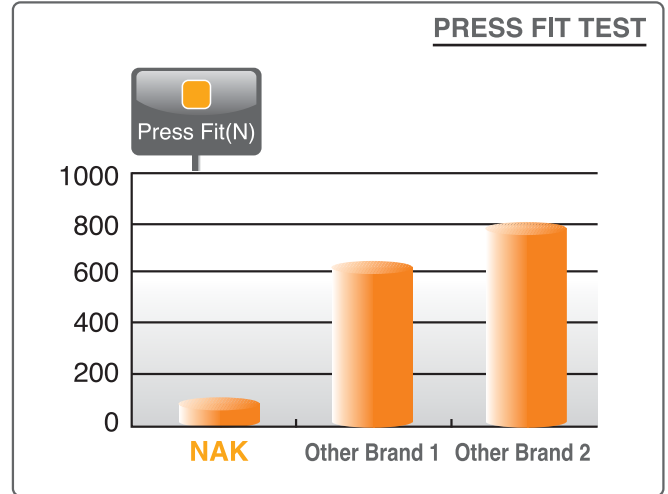
## Comparative Testing of NAK "Sealing Power" ST and Competitor Seals

To ensure the performance and quality of NAK ST Seals, comparative tests have been conducted by both NAK factory and NAK customer. Results show that NAK ST Seals are superior to competitor seals in terms of press fit, torque, pumping rate, and dynamic durability.

Regarding durability, both NAK factory and NAK customer have conducted tests. In NAK factory lab we have done the endurance test under the following conditions: (1) Fluid: EP Gear oil SAE 80W-90 (2) Fluid Temperature: Normal, 82°C (3) Fluid Pressure: 0 bar (4) Fluid Level: 1/2 Full (5) Speed: 0 rpm, 150 rpm, 700 rpm (housing rotation). The test result-ST seal passed 1,000 hours of testing, qualified for endurance.

In year 2007 NAK customer tested NAK ST Seals and competitor seals in conditions similar to that of which they will be operating. Dynamic tests were running and a daily log was kept. Seals were left to run until they started to leak oil, the time they were considered to have failed and the tests were ended.

Based on the data of the dynamic testing program, NAK customer concluded that NAK ST Seals are high quality seals. From the seals that were tested, they found that NAK ST Seals performed many times longer than did competitor seals.

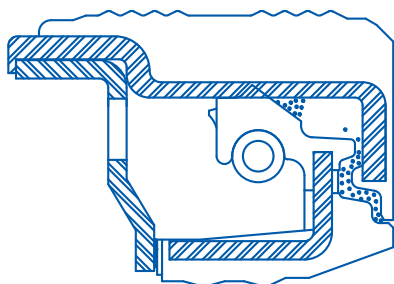


ST Sample Tested: ST5 117.48 x 152.40 x 25.15

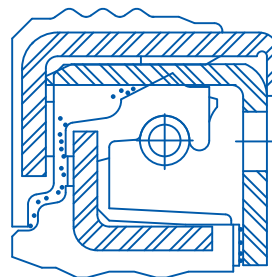
# Application

## Variations and Custom Designs Available

NAK offers **"Sealing Power"** ST Hub Seals in both standard range and variations to suit a wide range of rigorous operating conditions.



ST 5



ST 34

**T**hese are just some example styles. **C**ontact us for more information!!

### Disclaimer

1. NAK product is prohibited to use, install or apply in or on any aerospace related instrument and equipment.
2. NAK has no liability under any express or implied Warranty if NAK Product:
  - is modified or tampered;
  - is misused, abused or misapplied;
  - is used in a critical environment or specific equipment without NAK prior written acknowledgement;
  - is not used in accordance with the printed user instruction materials
  - is damaged owing to natural deterioration, decomposition or transformation of chemical structure
3. If NAK's product to be applied in critical environment or specific equipment, it is only allowed to launch into mass production when the sample has been passed the testing conducted by the user.

### "Sealing Power" ST5 Interchange

Nak Part No	Size	CR	National	Stemco
MS-801	121.08x160.32x28.32	47697	370003A	393-0173
MS-802	117.48x152.40x25.15	46305	370025A	373-0143
MS-803	88.90x122.96x23.34	35066	370001A	383-0136
MS-804	114.30x146.05x25.56	45099	370022A	393-0103
MS-805	107.95x152.60x24.74	42623	370065A	373-0123
MS-806	111.13x149.99x25.15	43764	370048A	383-0164
MS-807	101.60x146.15x27.13	40136	370036A	373-0113
MS-808	98.43x144.53x23.55	38780	370023A	393-0112
MS-809	114.30x149.23x24.74	45103	370131A	383-0156
MS-810	107.95x158.75x31.50	42672	370031A	393-0104



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